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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WENDY VICTORIA JANE YOUNG,
GRAHAM NEIL McKELVEY, CHANTELLE MARY McCANN,
and ANTHONY McMEEKIN

Appeal 2007-004244
Application 09/744,836
Technology Center 1600

Decided:¹ July 24, 2009

Before TONI R. SCHEINER, DONALD E. ADAMS, and DEMETRA J.
MILLS, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

This appeal under 35 U.S.C. § 134 involves claims 1-15, the only claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

STATEMENT OF THE CASE

The claims are directed to a hair care composition (claims 1-8 and 11-15), a method of conditioning hair with the composition of claim 1 (claim 9), and a packaged product comprising the composition of claim 1 (claim 10). Claim 1 is illustrative:

1. A hair care composition comprising from about 0.001% to about 5% of polysiloxane resin, wherein at least one substituent group of the resin possesses delocalised electrons and wherein the composition is a leave-on composition.

The Examiner relies on the following evidence:

Pings	US 5,482,703	Jan. 9, 1996
Hughes	US 5,567,428	Oct. 22, 1996
Berthiaume	GB 2 297 757 A	Aug. 14, 1998

The rejections presented by the Examiner are as follows:

1. Claims 1-4, 6-9, and 11-15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hughes.
2. Claims 1-15 stand rejected under 35 U.S.C § 103(a) as unpatentable over Hughes.
3. Claim 5 stands rejected under 35 U.S.C § 103(a) as unpatentable over the combination of Hughes and Berthiaume.
4. Claims 1-15 stands rejected under 35 U.S.C § 103(a) as unpatentable over the combination of Pings and Berthiaume.

We reverse.

Anticipation:

ISSUE

Have Appellants established error in the Examiner's reliance on Hughes as an anticipatory reference?

FINDINGS OF FACT

FF 1. Appellants' Specification defines the term "leave-on" as "a hair care composition that is intended to be used without a rinsing step" (Spec. 3: 31-32).

FF 2. Hughes teaches a preference for the use of silicone resins as a drying aid in personal care compositions (App. Br. 9, *see also* Hughes 11, ll. 30-31).

FF 3. Both Hughes and Appellants disclose that polysiloxane "resins are highly crosslinked polymeric siloxane systems" (Hughes, col. 10, ll. 65; Spec. 4: 15).

FF 4. Both Hughes and Appellants disclose that silicon

Resins can conveniently be identified according to a shorthand nomenclature system well known to those skilled in the art as "MDTQ" nomenclature. Under this system, the silicone is described according to the presence of various siloxane

monomer units which make up the silicone. Briefly, the symbol M denotes the monofunctional unit $(\text{CH}_3)_3\text{SiO}_{0.5}$; D denotes the difunctional unit $(\text{CH}_3)_2\text{SiO}$; T denotes the trifunctional unit $(\text{CH}_3)\text{SiO}_{1.5}$; and Q denotes the quadric- or tetrafunctional unit SiO_2 . Primes of the unit symbols, e.g., M', D', T', and Q' denote substituents other than methyl, and must be specifically defined for each occurrence.

(Hughes, col. 11, ll. 42-53 and Spec. 6: 1-11.)

FF 5. Hughes defines the substituents for M', D', T', and Q' as including "groups such as vinyl, phenyls, amines, hydroxyls, etc." (Hughes, col. 11, ll. 53-54).

FF 6. Hughes teaches that MQ, MT, MTQ, MDT, and MDTQ resins are preferred; Hughes' preferred silicone substituent is methyl" (Hughes col. 11, ll. 65-67; *see also* App. Br. 9).

FF 7. Appellants' Specification discloses that "the polysiloxane resins for use herein must have at least one M', D', T' or Q' functionality that possesses a substituent group with delocalized electrons" (Spec. 6: 11-13).

FF 8. Hughes discloses that "[t]he level of drying aid in the compositions hereof will preferably be from about 0.1% to about 2% (Hughes, col. 10, ll. 47-48).

FF 9. The Examiner finds that Hughes teaches a hair conditioner comprising a polysiloxane resin (Ans. 4, citing Hughes, col. 11 - 12, col. 32, Example IX, and col. 34, Example X).

PRINCIPLES OF LAW

“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

On appeal to this Board, Appellants must show that the Examiner has not sustained the required burden. *See Ex parte Yamaguchi*, 88 USPQ2d 1606, 1608 and 1614 (BPAI 2008) (precedential).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros, Inc. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

ANALYSIS

Claim 1 is drawn to a hair care composition. The composition of claim 1 comprises from about 0.001% to about 5% of polysiloxane resin, wherein at least one substituent group of the resin possesses delocalized electrons. Further, claim 1 states the intended use of the composition as a “leave-on composition” (Claim 1).

Appellants contend that Hughes’ Example IX does not teach a polysiloxane resin within the scope of the claimed invention (App. Br. 10). The Examiner agrees (*Cf.* Ans. 8 and FF 9). Nevertheless, the Examiner asserts that Hughes’ “disclosure at columns 11-12 and claims 7-11 clearly support that silicone resins are anticipated in place of the trimethyl-siloxysilicate” (Ans. 8). We are not persuaded.

There is no dispute that Hughes teaches silicone resins. The question remains, however, whether Hughes' teaches a composition comprising a *polysiloxane resin* within the scope of Appellants' claimed invention.

Polysiloxane resins are highly crosslinked polymeric siloxane systems (FF 3). Accordingly, we are not persuaded by the Examiner's assertion that "the claims do not recite whether the polysiloxane resins are crosslinked" (Ans. 7).

We agree with Appellants' contention that the Examiner has improperly combined the "R groups" from Hughes' disclosure of another category of drying aids – "the silicone fluids and waxes" (*see* Hughes, col. 12, ll. 4-51) – with Hughes' separate teaching of polysiloxane resins (*Cf.* App. Br. 8 and Ans. 7-8).

Appellants' Specification discloses that "the polysiloxane resins for use herein must have at least one M', D', T' or Q' functionality that possesses a substituent group with delocalized electrons" (FF 7). Both Hughes and Appellants disclose that the primes of the unit symbols, e.g., M', D', T', and Q' denote substituents *other than methyl*. Accordingly, we interpret the phrase "at least one substituent group of the resin possesses delocalized electrons" to mean that the substituent group (1) possesses delocalized electrons and (2) *is not methyl*.

For the foregoing reasons, we are not persuaded by the Examiner's reliance on Hughes' teaching of polysiloxane resins containing methyl groups or assertion that such a "methyl group, inherently contains delocalized electrons" (Ans. 8). For the same reasons, we are not persuaded by the Examiner's reliance on Hughes' Example V to teach polydimethylsiloxane as the drying aid for Hughes' Example X (*id.*). The

Examiner has failed to establish that “polydimethylsiloxane” is a polysiloxane within the scope of Appellants’ claimed invention.

In sum, the Examiner has failed to provide the evidence necessary to establish that Hughes anticipates Appellants’ claimed invention.

CONCLUSION OF LAW

Appellants have established that the Examiner erred in relying on Hughes as an anticipatory reference.

The rejection of claims 1, 2-4, 6-9, and 11-15 under 35 U.S.C. § 102(b) as being anticipated by Hughes is reversed.

Obviousness:

PRINCIPLES OF LAW

“In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art.” *In re Fritch*, 972 F.2d 1260, 1265 (Fed. Cir. 1992). On appeal to this Board, Appellants must show that the Examiner has not sustained the required burden. *See Ex parte Yamaguchi*, 88 USPQ2d 1606, 1608 and 1614 (BPAI 2008) (precedential); *Ex parte Fu*, 89 USPQ2d 1115, 1118 and 1123 (BPAI 2008) (precedential).

[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. ... [I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.

KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398, 418 (2007).

“We must still be careful not to allow hindsight reconstruction of references to reach the claimed invention without any explanation as to how or why the references would be combined to produce the claimed invention.” *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1374 n.3 (Fed. Cir. 2008).

Hughes:

ISSUE

Have Appellants established error in the Examiner’s conclusion that claim 1 is prima facie obvious in view of Hughes?

FINDINGS OF FACT

FF 10. Hughes’ claims 7-11 are drawn to a composition wherein the drying aid is a silicone resin (Hughes, col. 38, ll. 24-36).

ANALYSIS

The Examiner asserts that “Hughes states that MQ resins are especially preferred . . . and [c]laims 7-11 also envisage MQ resins as the drying aids” (Ans. 10). Appellants contend that “the polysiloxane resins of the present invention are not the MQ resins of Hughes. Rather, the resins of the present invention must have at least one prime unit, i.e., must have a substituent other than methyl” (App. Br. 12). We agree with Appellants (FF 7). In addition, Hughes’ claims 7-11 are drawn to a composition wherein the drying aid is a silicone resin (FF 10). The Examiner has failed to explain why a “silicone resin” should be interpreted as the polysiloxane resins of Appellants’ claimed invention. Further, as explained above, Hughes’

disclosure at column 12, lines 20-40 relates to a different category of drying agents than a polysiloxane resin, therefore the Examiner's reliance on this portion of Hughes is off point (*see* Ans. 10).

CONCLUSION OF LAW

Appellants have established that the Examiner erred in concluding that claims 1-15 are *prima facie* obvious over Hughes.

The rejection of claims 1-15 under 35 U.S.C § 103(a) as unpatentable over Hughes is reversed.

Hughes and Berthiaume:

ISSUE

Have Appellants established error in the Examiner's *prima facie* case of obviousness?

FINDINGS OF FACT

FF 11. The Examiner finds that Hughes does not teach the 2-phenylpropyl substituted polysiloxane resin of Appellants' claim 5 (Ans. 5).

FF 12. The Examiner finds that Berthiaume teaches "low viscosity organofunctionalized siloxysilicates. The low viscosity property allows for high loading of active ingredients without the deleterious effects such as difficulty in spraying, etc. (pg. 2). [Berthiume] . . . teaches the modified siloxysilicates possess high refractive indexes than other alkyl substituted siloxysilicates" (*id.*).

FF 13. The Examiner concludes that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the

teachings of Hughes and . . . [Berthiaume] since [Berthiaume] . . . teaches the modifies [sic] resins have a high refractive indexes [sic] for shine” (*id.*).

ANALYSIS

Appellants contend that there is “no motivation for the practitioner of ordinary skill in the art to look to the teachings of . . . Berthiaume to resolve the deficiencies of the Hughes reference” (App. Br. 12). We agree. At best, the Examiner has established that organofunctionalized siloxysilicates with high refractive indices may be beneficial in enhancing the shine of hair (*see, e.g.*, FF 12 and 13). The Examiner has failed, however, to identify a teaching in Berthiaume of a 2-phenylpropyl substituted polysiloxane resin and that it would have been obvious to combine such a substituted polysiloxane resin with the composition taught by Hughes. *KSR*, 550 U.S. at 418.

CONCLUSION OF LAW

Appellants have established that the Examiner erred in concluding that claim 5 was *prima facie* obvious over the combination of Hughes and Berthiaume. The rejection of claim 5 under 35 U.S.C § 103(a) as unpatentable over the combination of Hughes and Berthiaume is reversed.

Pings and Berthiaume:

ISSUE

Have Appellants established error in the Examiner’s *prima facie* case of obviousness over the combination of Pings and Berthiaume?

FINDINGS OF FACT

FF 14. Pings teaches hair care compositions that comprise a silicone condition agent (Pings Abstract; Ans. 13; App. Br. 13).

FF 15. Pings' "[p]referred silicone conditioning agents include the polydimethylsiloxanes" (Pings, col. 3, ll. 5-6; Ans. 14).

FF 16. There is no dispute on this record that Pings teaches hair care compositions that do not comprise Appellants' polysiloxane resin (Ans. 5; App. Br. 13).

ANALYSIS

Appellants contend that Berthiaume teaches a genus of resins that "include species that do not have substituent groups that possess delocalized electrons"; therefore, "the practitioner of ordinary skill must first select from . . . [Berthiaume] specific resins that have delocalized electrons even though there is no guidance absent the disclosure of the present invention to do so" (App. Br. 13). In this regard, Appellants contend that the Examiner has improperly relied on hindsight reconstruction to modify the combination of references to arrive at the claimed invention. We agree.

The Examiner has failed to explain how or why a person of ordinary skill in the art would select a particular polysiloxane resin from Berthiaume that meets the requirements of Appellants' claimed invention for inclusion in Hughes' composition. *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d at 1374, n.3.

CONCLUSION OF LAW

Appellants established that the Examiner erred in concluding that the claims are prima facie obvious over the combination of Pings and Berthiaume.

The rejection of claims 1-15 under 35 U.S.C § 103(a) as unpatentable over the combination of Pings and Berthiaume is reversed.

REVERSED

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